

Attorney Docket No. B06090-E

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Kreutz, et al.

Serial Number: Unknown

Appliance For Plucking Hairs out of Human Skin

Box Patent Application
Assistant Commissioner for Patents
Washington, DC 20231

) Examiner: Dawson, G.

) Group Art Unit: 3731

) Filed: Herewith



27199

PATENT TRADEMARK OFFICE

FIRST PRELIMINARY AMENDMENT

Prior to examining this application kindly enter this preliminary amendment.

In the Abstract:

Amend the Abstract to read:

The invention is directed to an appliance for the epilation of the human skin, having a housing to accommodate a motor and a drive mechanism for driving at least one clamping device (43) by which the user's hairs can be extracted. Moreover, a stimulation mechanism is provided to reduce the sense of pain during epilation. This mechanism includes at least one element (55) that is movable toward and away from the skin when the appliance is placed in epilating position on the user's skin. According to certain embodiments of the present invention, the at least one element (55) has a free end (56) and is arranged adjacent to the side of the rotary clamping device (43). In consequence, the user perceives at least subjectively a reduced sense of pain during epilation. Still further, a method for epilation and a method for the use of the appliance of the present invention are described.

CERTIFICATE OF MAILING (37 CFR 1.8)

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as Express Mail, being Express Mail No. EL157819696 US in an envelope addressed to the Box Patent Application, Assistant Commissioner for Patents, Washington, D.C. 20231.

January 22, 2002
Date

Signature: Rachael Rollins
Printed Name: Rachael Rollins

In the Specification:

At page 1, after the title, add the following paragraph:

This application is a continuation of application U.S. Serial No. 09/444,643, filed on November 22, 1999, which is a continuation application of U.S. Serial No. 08/996,991, filed on December 12, 1997, now U.S. Pat. 6,083,233, which had been filed as a continuation of International Application PCT/EP96/02412, with an international filing date of June 4, 1996.

At page 1, after the title, insert the caption

Background of the Invention

At page 2, before line 5, insert the caption

Summary of the Invention

At page 2, replace paragraph beginning at line 11 with the following:

According to the present invention, this object is achieved in an epilation appliance and in a method wherein by reason of the fact that at least one element that is movable toward and away from the skin has one free end, a mechanical pulse can be generated to advantage, producing a stimulation on the skin which overshadows the actual pain during epilation. Furthermore, by arranging the at least one element, but in particular several elements, adjacent to the side of the rotary clamping device, the stimulation on the skin occurs advantageously before or during the epilating operation.

At page 11, before line 15, change "In the drawings," to the caption

Brief Description of the Figures

At page 12, before line 30, insert the caption

Detailed Description of Preferred Embodiments

At page 12, change the paragraph beginning at line 30 to:

The features described in the following with reference to FIGS. 1 to 14 are suitable for use with an epilating appliance as disclosed in European Offenlegungsschrift (Published Application)

No. 596 283 A1 and as it is herewith incorporated in the disclosure content of the present patent application by express reference.

At page 13, change the first sentence of the paragraph beginning at line 11 to read (the remainder of the paragraph remains as-filed):

FIG. 1 shows an epilation head 1 of an epilating appliance of the present invention.

In the Claims:

Please cancel the original claims 1-23, without prejudice, and kindly add the following claims, support for which is discussed in the "Remarks" section:

--24. Hair-removing device comprising:

a hair-removal roller driven in rotation by a motor around an axis of rotation arranged behind a housing window, said roller comprising a plurality of tweezing blades arranged in at least one row, each of said tweezing blades having a tweezing edge,

control means for successively leading said tweezing blades to close against one another in order to tweeze hairs to be plucked and then to separate from one another; and

a pain-soothing device comprising elements mounted on said roller, wherein

said elements are mounted in a fixed position on said roller and each element has at least one protuberance extending beyond a virtual cylinder coaxial with said roller and in which are inscribed said tweezing edges of said tweezing blades,

each said protuberance has an outer end that is at least one of inclined and rounded along a plane that is transverse to the axis of rotation of said roller and that passes through said element from which said protuberance extends and

each said element has a stiffness and dimensions selected to cause each said protuberance, when said roller is rotating and is disposed against a user's skin, to contact the skin and then press into the skin to perform a massaging action and to create a pain masking that of the hair removal.

25. Hair-removing device according to claim 24, wherein the outer end of each protuberance is rounded and has a base which is situated within the virtual cylinder.

26. Hair-removing device according to claim 24, wherein the outer end of each protuberance is rounded and convex.
27. Hair-removing device according to claim 24, wherein said elements are arranged on the roller in a series in an elongated zone covering substantially the length of the roller, and are distributed along one of: a straight line; a helical line; and in staggered rows.
28. Hair-removing device according to claim 24, wherein said elements are either connected to on a part of said roller, or are formed in one piece with said part.
29. Hair-removing device according to claim 24, wherein said elements are rigid or semi-rigid.
30. Hair-removing device according to claim 24, wherein said elements are present in the form of at least one radial plate having an external edge, or a bar having an external edge extending parallel to the axis of rotation between lateral cheeks of said roller, said external edge of said plate or of said bar protruding beyond the virtual cylinder and being straight, undulating, or toothed.
31. Hair-removing device according to claim 24, wherein said roller comprises at least one component having a circular periphery inscribed in the virtual cylinder and said protuberances are arranged on said circular periphery.
32. Hair-removing device according to claim 24, wherein each said protuberance is formed adjacent the tweezing edge of a tweezing blade.
33. Hair-removing device according to claim 24, wherein said roller comprises peripheral pedestals extending parallel to the axis of rotation of said roller and each having an external face, and wherein said elements are mounted on said external faces of said pedestals.
34. Hair-removing device according to claim 33, wherein said elements are a series of spikes individually connected on said pedestals.

35. Hair-removing device according to claim 33, further comprising a base fitted into one of said pedestals and a plurality of said protuberances are connected to, or integral with, said base.

36. Hair-removing device according to claim 33, wherein each of said elements comprises a rod.

37. Hair-removing device according to claim 33, wherein each of said pedestals has an oblique external face and each of said elements constitutes a protruding elongated edge of the oblique external face of a respective one of pedestals, said protruding elongated edge of said oblique external face of each of said pedestals being an upstream or downstream edge of said oblique external face as viewed with respect to the sense of rotation of said roller, and said protruding elongated edge of said oblique external face of each of said pedestals is straight, undulating, or toothed.

38. Hair-removing device comprising:

a hair-removal roller driven in rotation by a motor around an axis of rotation arranged behind a housing window, said roller comprising a plurality of tweezing blades arranged in at least one row, each of said tweezing blades having a tweezing edge,

control means for successively leading said tweezing blades to close against one another in order to tweeze hairs to be plucked and then to separate from one another; and

a pain-soothing device comprising elements mounted on said roller, wherein

said elements are mounted in a fixed position on said roller and each element has at least one protuberance extending beyond a virtual cylinder coaxial with said roller and in which are inscribed said tweezing edges of said tweezing blades,

each said protuberance has an outer end that is at least one of inclined and rounded along a plane that is transverse to the axis of rotation of said roller and that passes through said element from which said protuberance extends and

each said element has a stiffness and dimensions selected to cause each said protuberance, when said roller is rotating and is disposed against a user's skin, to contact the skin and then press into the skin to perform a massaging action and to create a pain masking that of the hair removal.--

REMARKS

This application originated in Germany, and this First Preliminary Amendment is believed to place the specification in a form that is more consistent with the practice in the U.S. Patent and Trademark Office, and to secure applicants' rights in their invention.

Claims 24-38 are presented, claims 1-23 having been canceled without prejudice. Claims 24 and 38 are independent (as noted below, they are also identically worded). The present claims are supported by the embodiments and disclosure relating to Figs. 1-9.

The specification has been amended to refer to the present application as a continuation of application U.S. Serial No. 09/444,643, filed on November 22, 1999, pending, which is a continuation application of U.S. Ser. No. 08/996,991, filed Dec. 12, 1997 (now issued U.S. Pat. 6,083,233) which had continued from International Patent Application PCT/EP96/02412, with an international filing date of June 4, 1996.

Applicants' claim to priority under 35 U.S.C. §119 of an application filed in Germany, serial no. 195 21 585.0, filed June 14, 1995, is supported by the certified copy of that German priority document on file in the grand-parent application, U.S. Ser. No. 08/996,991, receipt of which had already been acknowledged by Examiner therein.

Amendments to the Specification:

The specification is amended to improve readability, and these are the same amendments that were already entered by Examiner in the parent application.

Disclosure of Claims copied from an Issued U.S. Patent:

In accordance with the possible requirement in 37 C.F.R. §1.607(c) as understood by Applicants, it is noted that claims of the present application correspond to claims 1-17 of U.S. Patent 6,176,862 B1 (Delay et al.), issued January 23, 2001, having a filing date of May 12, 1999, and are thus presented within one year of the issue date of said patent. Applicants' priority filing date

(June 14, 1995) is senior to both Delay et al.'s filing date (May 12, 1999) and his foreign priority date (September 16, 1997) by more than one year, and thus would be entitled to senior party status were Examiner to initiate an Interference proceeding.

Since the claims have been copied from an issued patent, they are understood to have been found by the Patent Office (through Primary Examiner John Wilson and Examiner Eduardo Robert) to comply with §112, 2nd para., and all other requirements of patentability.

The invention of the present claims has as its purpose, as Delay et al. '862 (hereinafter "Delay") states at column 3, lines 23-27, that the painful stimulus of the hair tweezing is masked by overloading the nerves through the additional imposed, repetitive mechanical stimulus to massage the skin in a comfortable manner (see also col. 8, ln. 35). The present application identically states that the overlaid pulse overshadows the actual epilating pain by saturating the nerve, see carryover text at page 2, lines 15 to page 3, line 8.

Delay uses pain-masking elements that are pins or protuberances that are at their base (or proximal) ends attached to the rotary member, and at their free, skin-engaging (or distal) end extend beyond the virtual cylinder (an imaginary mantle surface) inscribed around the roller. The specification teaches that to achieve the pain-masking result, the free end extends by an amount between 0.1 mm and 1mm (see Fig. 2, and e.g. col. 9, ln. 6); this falls within the identical range taught by the pain-masking elements of the present invention, which extend beyond the virtual cylindrical surface by a similar amount of 0.1 mm to 6 mm, see specification at page 14, line 34 and e.g. Figures 2, 8 or 9.

Delay gives a special, broad definition to the claim term that the pain-soothing elements are mounted in a "fixed position". Firstly, note that the elements can be either rigid or resilient, which is expressly stated in dependent claim 6; thus claim 1 encompasses pain-soothing elements that are rigid or elastic. Secondly, specifically according to the Delay disclosure, the protrusions themselves do not have to be made of a rigid material but can be flexible, as expressly stated at column 4, line 23. The specification gives several examples that flexible "semi-rigid pain-soothing elements [i.e, the protrusions] are thus produced in a simple manner, notably by the fact

that they are carried in a flexible manner to offer a possibility of a whipping movement." (emphasis added). Delay claim 1 embraces such embodiments of this type of elastic protrusions disclosed in his specification as: silicone rubber prongs as in Fig. 2 (col. 5, ln. 35); thin flexible fingers as in Fig. 7b (col. 10, ln. 4); a tuft of filaments like bristles with an overmolded plastic ball head as in Fig. 10c, which is essentially a hinge joint (col. 11, ln. 14); or a thin flexible tongue as in Fig. 10b (col. 11, ln. 8). This is identical to Applicants' disclosed structure, see e.g. the embodiment at Figs. 8a-8b, or the embodiment at Fig. 9a-9c, or the embodiment at Fig. 6 (considering the subassembly comprising parts 16 and 33, the proximal end of 33 is fixedly retained), which each provides a "built-in" support at the mounting location to the rotary cylinder while the free end can move to impact and massage the skin (Delay et al. "whipping movement"). Thus, Delay claim 1 covers protrusions whose free, distal ends move relative to their mounting base portions during rotation of the depilation cylinder; the "mounted in a fixed position" simply indicates that the protrusion's base portion does not move relative its attachment location to the rotary cylinder, and is identically taught in Applicants' disclosure.

Information Disclosure Statement

The accompanying I.D.S. makes of record the prior art of record on the title page of the Delay patent, those being understood to be the references deemed by the Patent Office and deemed by Delay et al.'s legal representative(s) as relevant to finding the claims to be patentable.

Correspondence of pending claims to Delay '862 claims:

Claim 24 corresponds identically to Delay claim 1, and claim 38 corresponds identically to Delay claim 17. In fact, upon review, Delay's claims 1 and 17 are, erroneously, identical; thus, claims 24 and 38 are identical to each other. Review of the prosecution file shows that that is not a printing error, but rather the deliberate result of applicant's having amended his claims. Reference can be made to Delay prosecution claim 17, which issued as claim 1 (see Amendment therein filed June 20, 2000), and Delay prosecution claim 33, which issued as claim 17 (see Amendment therein filed January 13, 2000). Thus, Delay claim 17 will not be separately discussed, and Applicants herein, having copied it to make it of record, are prepared to cancel claim 38 at an appropriate time if Examiner so directs.

Furthermore, claims 25-31 correspond identically to Delay claims 2-8. It is noted that features of claim 30 referring to the bar and its shape, or the rod referred to in claim 36, are seen e.g. in Fig. 9. In claim 36, the oblique face referred to is seen at least in Fig. 8.

Claim 32 corresponds to Delay claim 9, but more broadly recites that the protuberance is formed "adjacent" (rather than "in") the tweezing disc; nonetheless this has the same effect and is not patentably distinct. Delay states that the purpose of the arrangement of his claim 9 is that the "pain-soothing effect is then provoked practically at the very moment of plucking of the hairs"; identically, the present application states that the impulse is imparted directly in time with the plucking, see page 7, second paragraph.

Claim 33 corresponds to Delay claim 10, and is broader in that it omits the feature of a plurality of brushes, which is merely an aggregation or combination with known prior art elements. Such brushes are known in the prior art, and Delay provides such brushes adjacent the pain-masking members for the known prior-art purpose of guiding or erecting hairs (see column 8, lines 48-50). The placement of hair-manipulating brushes adjacent to pain-masking members is known for example from another application of the Delay patent's assignee, the company SEB, U.S. Pat. 5,893,854 (Bontoux et al.). It is noted that the SEB Bontoux '854 patent, while prior art to the Delay '862 patent, is not prior art to Applicants' present application.

Claim 36 corresponds to Delay claim 13, but more broadly recites that the element comprises a rod, see e.g. Fig. 5 or Fig. 9.

Delay Dependent claims 15 and 16:

The remaining Delay claims 15-16, both dependent claims, are believed to be not patentably distinct from the present claim 24. Furthermore, if Examiner indicated that an Interference proceeding were appropriate, it is noted that Applicants' more senior application would be treated

as prior art against Delay, and also fully combinable with other teachings in the field, to show that the Delay dependent claims are not nonobvious thereover and thus not patentable to Delay.

Delay claim 15 recites that the pain-masking member can be formed of cemented filaments, the resulting structure would be similar to the bar-like pain-masking element shown in Applicants' Figure 9.

Delay claim 16 recites in so many words that the pain-masking member can take the form of a thickening or inertial mass at the end of flexible filaments (tufts), which will whip dynamically as Delay states at col. 6, lines 40-49; the equivalent dynamic system is shown in Applicants' Figure 6 or Figure 8.

If a telephone conference would helpfully advance prosecution, the Examiner is invited to telephone the undersigned at 617-421-7939. Please apply any charges or credits to Deposit Account No. 07-1350.

Patent Department
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Respectfully submitted,



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January 18, 2002

APPENDIX

Marked-Up Version showing additions and deletions

In the Specification:

Additions are indicated by underlining, deletions by [bracketing]:

At page 1, after the title, add the following paragraph:

-- This application is a continuation of application U.S. Serial No. 09/444,643, filed on November 22, 1999, which is a continuation application of U.S. Serial No. 08/996,991, filed on December 12, 1997, now U.S. Pat. 6,083,233, which had been filed as a continuation of International Application PCT/EP96/02412, with an international filing date of June 4, 1996.-- .

At page 1, after the title, insert the caption --Background of the Invention--;

at page 2, before line 5, insert the caption --Summary of the Invention--;

At page 2, replace paragraph beginning at line 11 with the following:

-- According to the present invention, this object is achieved in an epilation appliance [of the type initially referred to by the characterizing features of claim 1,] and in a method wherein by [the features of claims 20 and 23. By] reason of the fact that [the] at least one element that is movable toward and away from the skin has one free end, a mechanical pulse can be generated to advantage, producing a stimulation on the skin which overshadows the actual pain during epilation. Furthermore, by arranging the at least one element, but in particular several elements, adjacent to the side of the rotary clamping device, the stimulation on the skin occurs advantageously before or during the epilating operation. --

At page 11, before line 15, change "In the drawings," to the caption

Brief Description of the Figures

At page 12, before line 30, insert the caption

Detailed Description of Preferred Embodiments

At page 12, change the paragraph beginning at line 30 to:

-- The features described in the following with reference to FIGS. 1 to 14 are suitable for use with an epilating appliance as disclosed in European Offenlegungsschrift (Published Application) No. 596 283 A1 and as it is herewith incorporated in the disclosure content of the present patent application by express reference. --

At page 13, change the first sentence of the paragraph beginning at line 11 to read (the remainder of the paragraph remains as-filed): --FIG. 1 shows an epilation head 1 of [such] an epilating appliance of the present invention. --

In the Abstract:

--The invention is directed to an appliance for the epilation of the human skin, having a housing to accommodate a motor and a drive mechanism for driving at least one clamping device (43) by [means of] which the user's hairs can be extracted. Moreover, [means are] a stimulation mechanism is provided to reduce the sense of pain during epilation. [These means] This mechanism includes at least one element (55) that is movable toward and away from the skin when the appliance is placed in epilating position on the user's skin. According to certain embodiments of the present invention, the at least one element (55) has a free end (56) and is arranged adjacent to the side of the rotary clamping device (43). In consequence, the user perceives at least subjectively a reduced sense of pain during epilation. Still further, a method for epilation and a method for the use of the appliance of the present invention are described.

[(FIG. 10)

11 Dec. 97/BH.] --